



HEALTHCARE INDUSTRY

Industry Overview

Healthcare sector is now focused on Integrated health via a whole-patient approach and understanding of social determinants of health with big tech play in health ecosystem

- Covid-19 pandemic intensified the pressing necessity to adopt digital health practices, including remote patient monitoring, telemedicine, telehealth, virtual care, and omnichannel-enabled member care.
- By providing a hybrid model of care delivery that combines digital and physical methods, healthcare providers are advancing digital health; providers and payers are beginning to reflect this change, and the industry is now a hub for innovators and investors.
- A greater emphasis on overall population health and the personalization of care interventions are being driven by patients' increased involvement in their healthcare journeys.

Industry Dynamics

Enhancing the patient experience will increase patient engagement.

Enhancing the patient experience is health organizations' primary priority in order to boost patient engagement and simplify procedures to lower friction points has been a frequent practice for many businesses, in consumer retail .

Applying artificial intelligence (AI) to healthcare

AI has the potential to have a major impact on the sector, from optimizing operations in the healthcare system to enhancing patient care through data-driven decision-making.

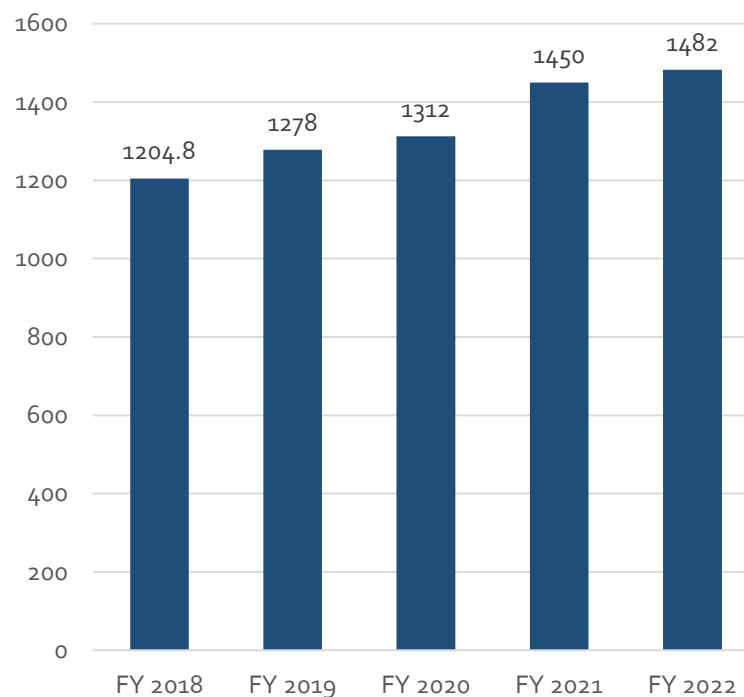
Using robotics in medical

Medical robots has the potential to lessen the workload in the medical field; these devices can support services and carry out a variety of duties thanks to automation and AI.

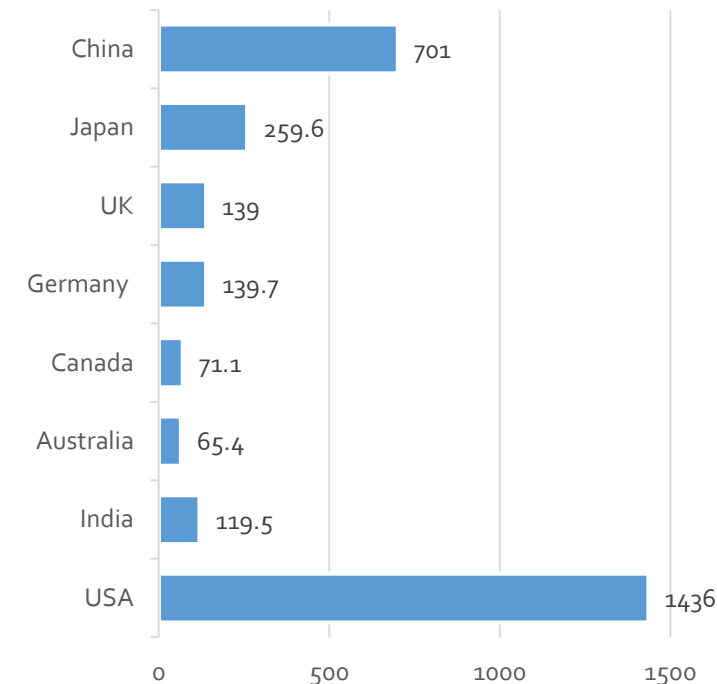
Investing in medical health

Investments in digital solutions for mental health are increasing; some technology platforms link patients with mental health practitioners & increase access to mental care.

Revenue of Pharmaceutical Market-Global(In Bn)



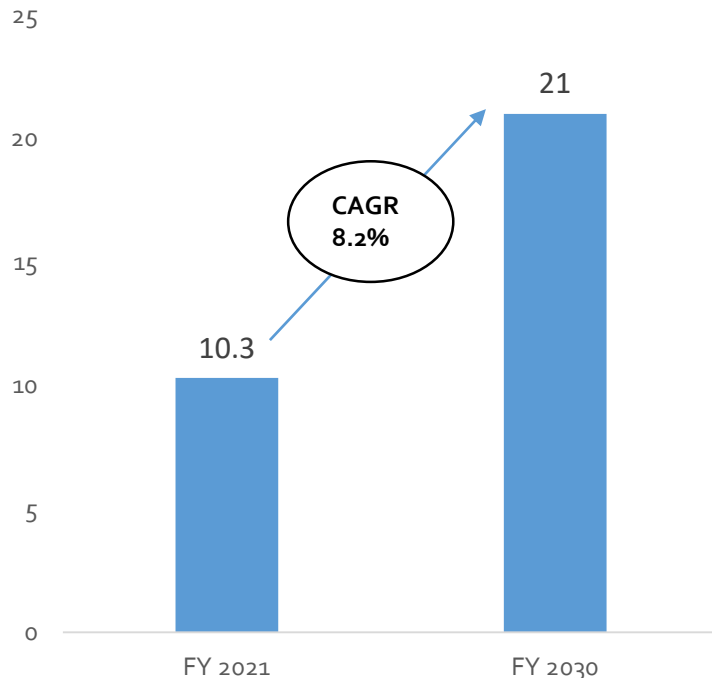
Revenue of Hospital Market-Global(In Bn)



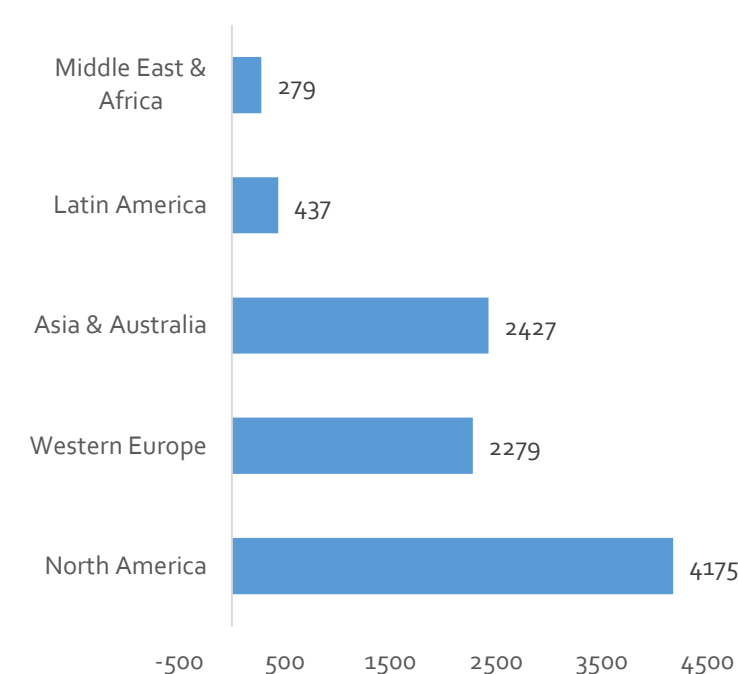
Industry Market Size

The size of the global Healthcare market is anticipated to increase from \$10.3 trillion in 2021 to \$21.06 trillion by 2027 at a CAGR of 8.6% during 2021-2030

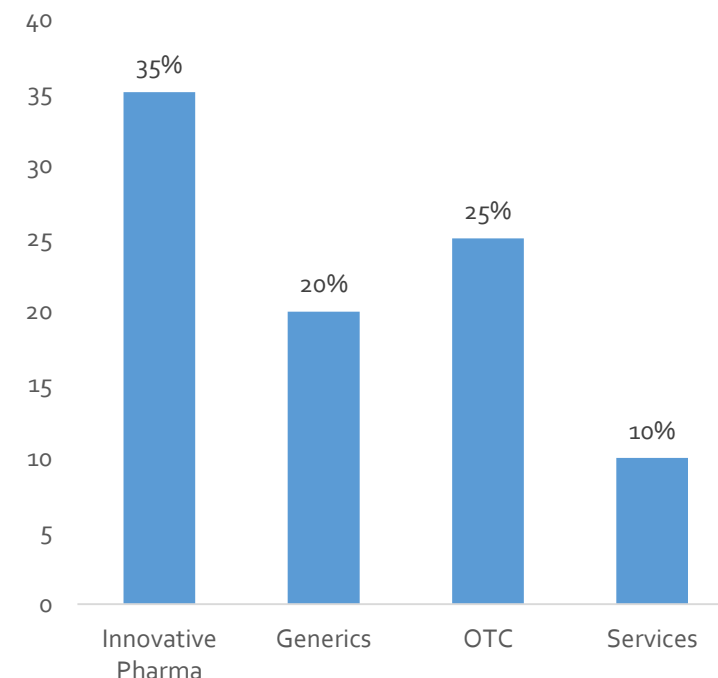
Healthcare Market Size(In Trillion)-Global



Global Healthcare Spending(In Billion)



Indicative Healthcare Segment Margins



- ▶ Technological developments in medicine have made it possible to treat a greater variety of diseases and ailments; as a result, specialized medical professions like telemedicine, genomics, and precision medicine have grown.
- ▶ In the United States, women comprise 76% of all healthcare workers, according to data from the Bureau of Labor Statistics. Furthermore, a sizable percentage of the healthcare workforce is made up of racial and ethnic minorities, with 12% of workers being Black or African Americans.
- ▶ India is one of the top global destinations for foreign patients seeking cutting-edge treatment, with \$ 5–6 billion in medical value travel & 500,000 international patients yearly.
- ▶ Ayushman Bharat scheme was launched to ensure universal health coverage & provide financial risk protection, assuring quality & affordable essential health services to individuals.

Healthcare Industry-Key Segments

The healthcare industry is comprised of companies that offer clinical services ,manufacture drugs & medical equipment and provide healthcare related support services like insurance

Healthcare Providers



- ▶ Hospitals and other medical centres
 - Performs disease diagnosis and treatment in addition to providing instruction, training & research
 - Hospitals are furnished with various types of medical equipment and amenities, including operating rooms where surgeons perform complex surgeries.
- ▶ **Nursing Homes and rehabilitative centers**
 - They provide services for both short- and long-term care; following surgery, illness, or injury, rehabilitative care may be a part of short-term care.
 - This could involve speech-language pathology, occupational therapy, or physical therapy. The sick, elderly, and crippled can receive long-term care.
- ▶ **Ambulatory Service providers**
 - Medical professionals, including doctors, offer non-hospital based care or outpatient medical services.
 - Patient receiving outpatient-based care is seen, diagnosed, and treated all on the same day at a hospital or outpatient clinic.

Healthcare Financers



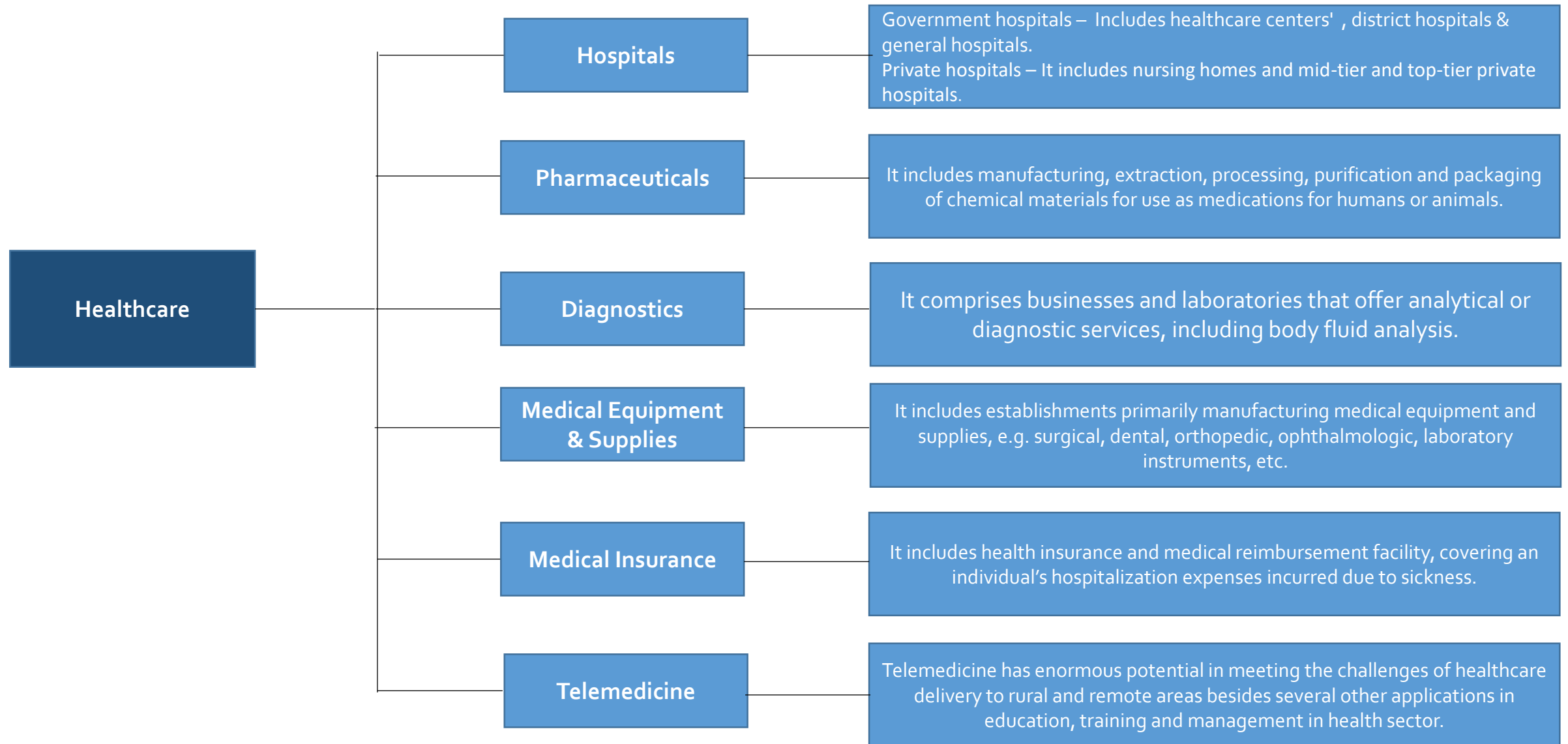
- ▶ Public and private organizations that offer health insurance plans and finance medical treatments.
- ▶ They are responsible for managing the payment of services delivered and managing the aggregation of medical funds obtained from individual insurance policies or employer payments.
- ▶ Healthcare financiers provide information about healthcare coverage types, patient access, and service distribution.
- ▶ Payers need to have a thorough awareness of the market and the regulatory environment because they are in charge of overseeing a lot of data and arranging coverage across several healthcare providers.

Life Sciences



- ▶ Life Sciences consists of pharmaceutical companies that produce medications and other chemicals required for healthcare delivery.
- ▶ Producers of advanced medical devices; and biotechnology companies that carry out R&D to produce novel medications, devices, and therapeutic approaches.
- ▶ Individuals that offer various scientific services for patient diagnosis, treatment, and follow-up are also included in this category.
- ▶ A growing need for cost-effective treatment choices has made the pharmaceutical and life sciences sector one of the fastest-growing in the healthcare industry.

Healthcare Industry- Functional Segmentation



Healthcare Industry- Value Chain Analysis

Management & Administration
Overseeing the entire healthcare organization, including strategic planning, finance, and human resources.

Technology and Information system
Managing healthcare information systems, electronic health records (EHR), and other technology infrastructure.

Healthcare Professionals
Recruiting, training, and managing doctors, nurses, technicians, and administrative staff.

Regulatory Compliance
Adhering to healthcare regulations and industry standards.

Medical Research
Investing in research and development for new treatments, drugs, and medical technologies.

Health Information Technology
Developing and maintaining electronic health records, telemedicine, and other technological solutions.

Medical Supplies and Equipment Procurement
Sourcing and purchasing medical equipment, drugs, and other supplies.

Suppliers
Pharmaceutical companies, medical equipment manufacturers, and other suppliers provide raw materials, drugs, medical devices, and other essential components for healthcare services.

Hospital Services:
Inpatient and outpatient services, emergency care, and critical care are part of hospital operations.

Primary Care Services:
These include routine check-ups, preventive care, and basic medical services.

Distribution of Pharmaceuticals: Getting drugs and medical supplies to pharmacies, hospitals, and other healthcare facilities.

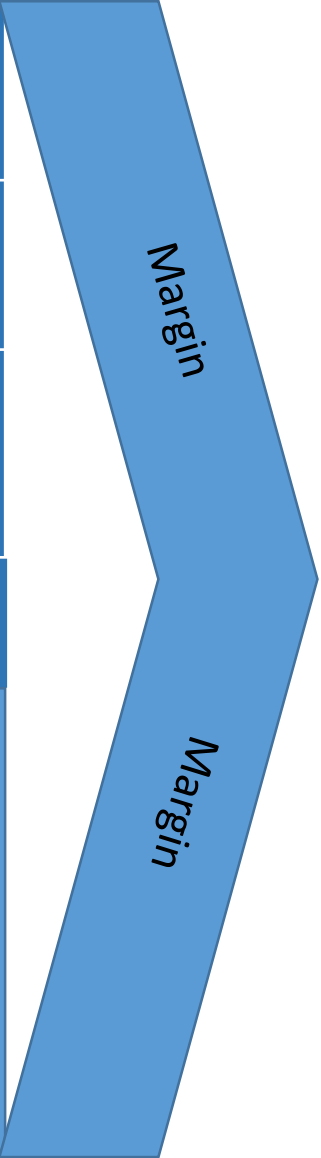
Patient Transfer:
Transporting patients between facilities or from home to healthcare centers.

Healthcare Providers:
Marketing the services of hospitals, clinics, and healthcare professionals to the public.

Pharmaceutical Companies: Marketing drugs to healthcare providers and consumers.

Patient Care: Providing medical services, nursing care, and other support services to patients.

Pharmaceutical Support:
Patient education, medication management, and other pharmaceutical services.



The intrinsic demand for healthcare services continue to rise globally given population aging, rising rates of chronic illness, and people's desire for a higher standard of living

Opportunities & Implications

Telehealth

The ability of home health care equipment to even provide vital signs in e-visits helped in the shift.

A whole generation has accelerated its credibility because to Covid-19 and these businesses are here to stay, are only emerging from their early setbacks, and will grow to be highly successful.

Standalone Healthcare facilities

In addition to being more comfortable, efficient, they can also provide smaller, better-controlled surroundings

An excellent investment in the coming days, these centers will only gain more from a patient's perspective that cautions against being near big infectious pools, as hospitals are and would become permanent fixtures.

Laboratory Services

a gradual shift in the delivery of laboratory services from large hospitals to independent kiosks.

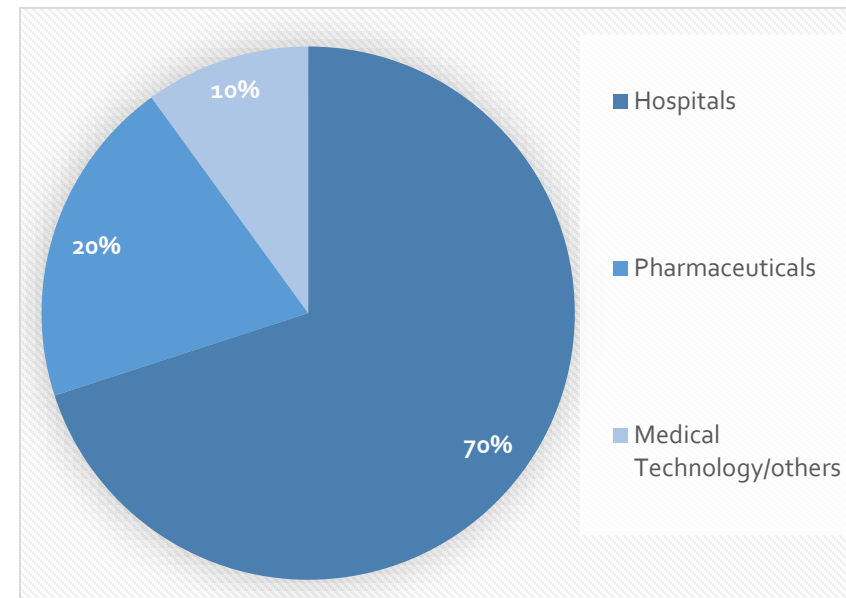
The pandemic has expanded on this theme to include home retrieval and even home results; home testing is on the rise, and a market for numerous crucial diagnostic and testing services delivered right to the patient's door has been established.

Medical Tourism

The ease of traveling abroad & the quick developments in internet communication have made it easier for the medical tourism sector

Entrepreneurs are starting companies to make it easier for people to get healthcare overseas due to the rising availability of global health and treatment choices; travelers frequently use their savings for health care sightseeing, and other expenses.

Market segments of Healthcare segments in India, 2021



- Government initiatives aimed at positioning the nation as a global centre for health and wellbeing, the healthcare industry in India is one of the fastest-growing in the world
- Enormous potential for foreign investment in this field as a result of the liberalized FDI policies in a number of subsectors, including healthcare, medical devices, hospitals, and insurance..

Healthcare Industry -Risks and Mitigation Strategies

Risks in the Industry

► Cyber Risks

The generation of enormous volumes of PHI and electronic health information makes the healthcare industry a prime target for all types of hackers; selling this data can bring in enormous earnings for attackers, as a single medical record can fetch up to \$250 on the illicit market.

► Healthcare Associated Infections

According to the Centers for Disease Control (HAI), healthcare-associated infection affects 1 in 31 hospital patients and every year, HAIs cost hospitals \$28.4 billion.

► Telemedicine

Telemedicine also presents a number of concerns to healthcare institutions, it may give rise to accusations of negligence, particularly in cases when healthcare personnel are not properly qualified or do not possess the necessary expertise

► Emergency Preparedness & Patient safety

Disasters such as pandemics can happen at any time; healthcare institutions that are unprepared for such occurrences are unable to provide for the needs of patients or shield employees from accidents, illnesses, burnout & mental health issues.

Mitigation Strategies

► Cyber Risk Management Strategy

The organization's investments in cybersecurity solutions, such as firewalls, endpoint detection and response (EDR) systems, antivirus software, and antimalware, should be guided by the plan; financial protection can be obtained by cyber liability insurance, which transfers the risks and related expenses to the insurance company.

► HAI Risk Management Strategy

To keep patients safe, healthcare management should instruct personnel on how to utilize these technologies correctly and on the fundamentals of infection control; on a larger scale for public health, accountability and reporting to the proper healthcare authorities can also aid in the prevention of HAIs.

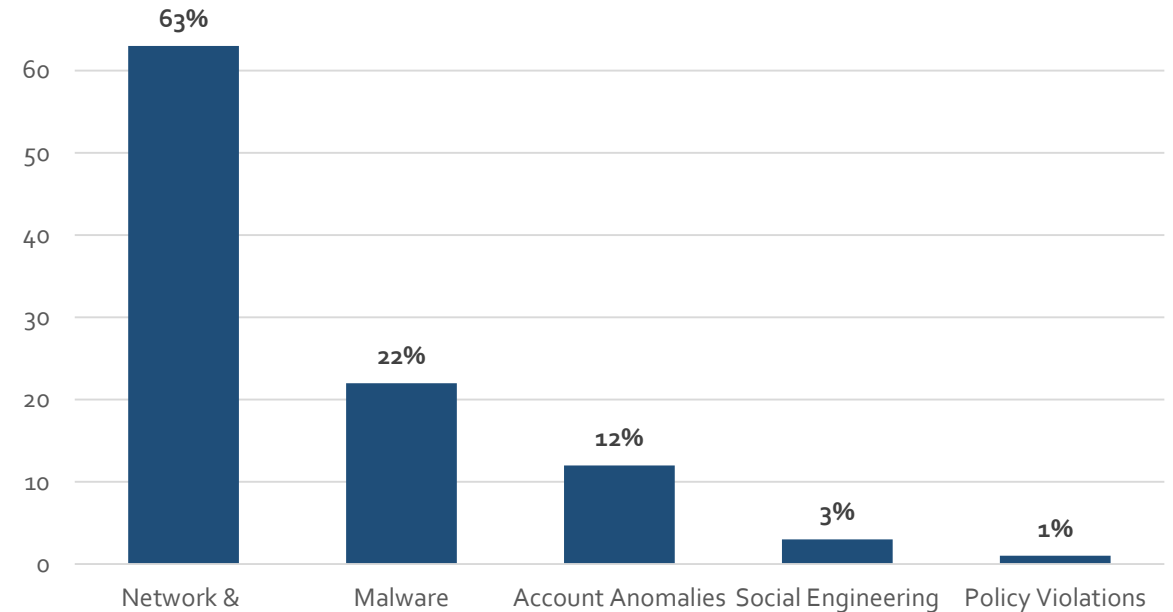
► Telemedicine Risk Management Strategy

Ensuring that every provider possesses the necessary skills & qualifications and adheres to the necessary care standards; establishing a thorough peer-review procedure, staff bylaws, and procedures to comply with Centers for Medicare and Medicaid Services (CMS) criteria is another essential risk reduction method.

► Emergency Preparedness Risk Management Strategy

An exhaustive & continuous risk assessment with involvement of organizational leadership is the foundation upon which all healthcare organizations must build their emergency incident response strategy and a curriculum for testing and training that includes plans for routine emergency exercises

Distribution of Cyber Attacks in Healthcare Industry worldwide (Oct,2021- Sep,2022)



According to HIMSS Future of Healthcare report 80% of healthcare providers plan to increase investment in technology and digital solutions over the next five years

Technological Trends

Internet of Medical Things(IoMT)

The healthcare sector anticipates that network of interconnected devices will keep expanding & wearable technology, such as smartwatches & pulsometers, which gather data through sensors & report the vital signs, such as blood pressure, heart rate, & temperature, are among the most widely used that can link to IoMT system.

Remote Patient Monitoring

Records patient health data electronically by utilizing the most recent developments in information technology.; mobile-friendly Relatively new, RPM uses an easy-to-use mobile app to push patients to share specifics about their feelings through notifications.

Nanotechnology

Despite being relatively new, medical nanotechnologies are already having an impact on the diagnosis, treatment, and prevention of a wide variety of disorders by physicians; with the help of this clever technology, diagnostic testing is improving and misdiagnosis is decreasing.

Sustainable Trends

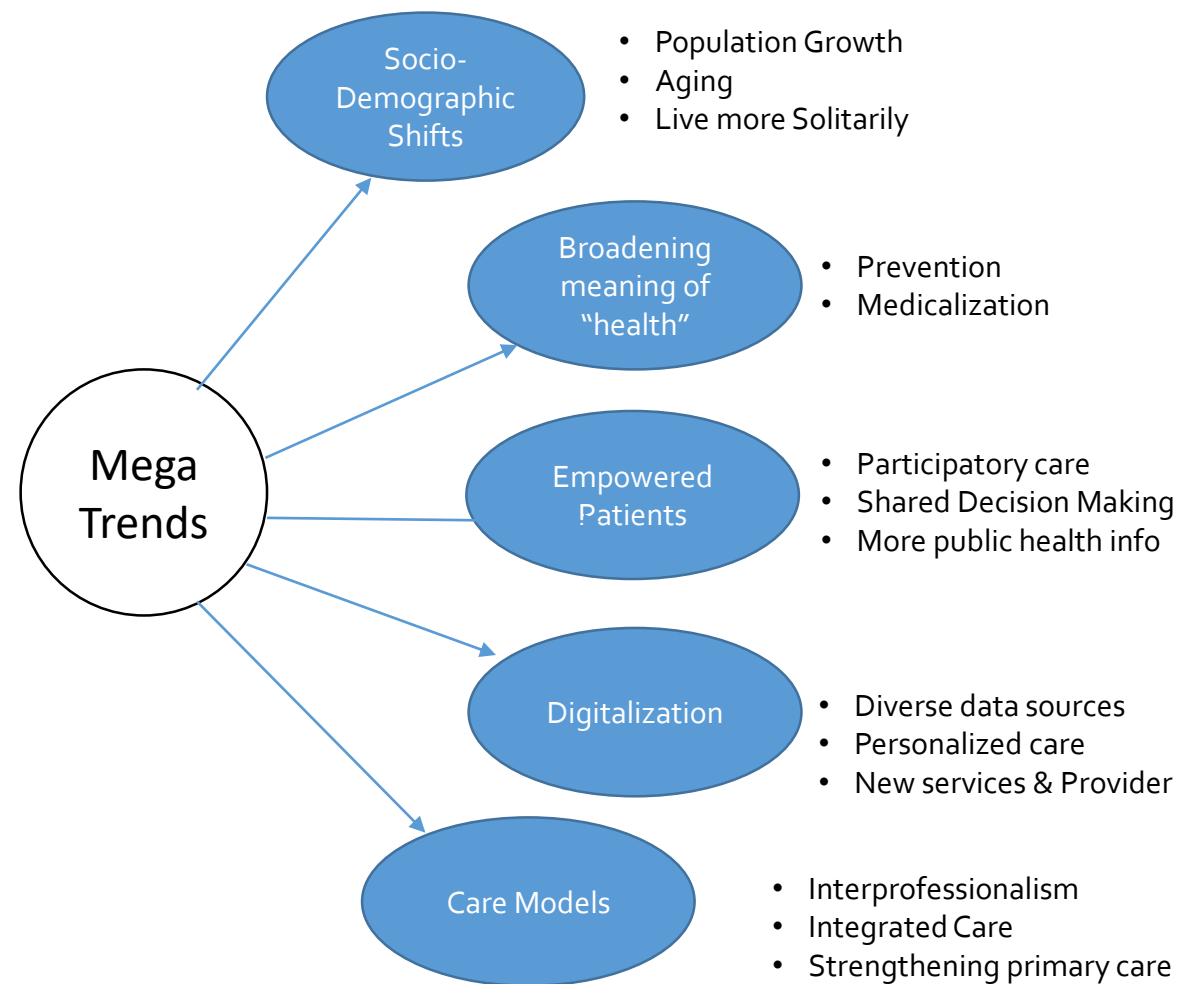
Reducing Carbon Footprint

Healthcare institutions use a lot of energy and produce a lot of carbon dioxide from their transportation, waste disposal, and energy use; adopting renewable energy sources implementing energy-efficient procedures can all assist healthcare institutions lower their carbon footprint.

Efficacy of Social Prescribing

Aims to improve mental health outcomes, lessen health disparities & create green social activity pathways in communities; maintaining a strong investment in community care & support will be essential for low-carbon care models in the future.

Mega Trends



Healthcare Industry- Demand Drivers

In 2023, the healthcare industry was listed as one of five fastest growing businesses referencing an expansion of 19%; making healthcare second-fastest growing sector

Demand Drivers

Aging Population

- It is projected that by 2030, one in six people globally would be classified as elderly, with the number of persons 60 and over predicted to increase from one billion in 2020 to 1.4 billion.
- Cognitive impairment is among the many health issues linked to aging. The demand for pharmaceuticals and healthcare services is mostly driven by senior persons.

New Approaches and Treatments

- Foundation of personalized medicine is a patient's distinct genetic composition; personalized pharmaceuticals made up barely 5% of new drugs approved by the U.S. Food and Drug Administration in 2005, despite the country being a large market for medical services. In 2022, this percentage rose to 34%.

Rising Private Expenditure on healthcare

- People have been seen to be spending an increasing amount on healthcare in recent years, despite the costs growing.
- Middle class's increasing income is probably one of the main causes of the growing demand for higher-quality healthcare services.

Robotic Process Automation

- In the healthcare sector, RPA increases staff productivity, lowers costs, and creates a strong value proposition.

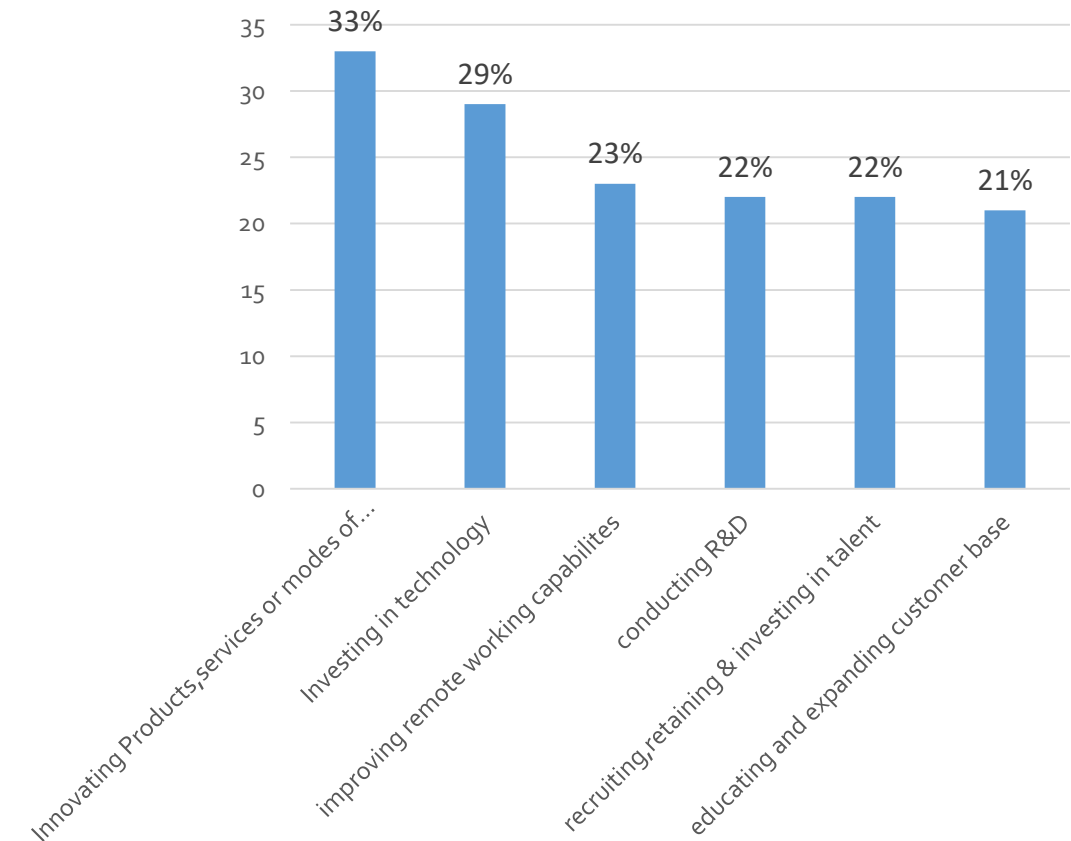
Emergence of Telemedicine

- The advent of telemedicine has revolutionized healthcare by offering easily accessible & convenient treatments and expansion of telemedicine in India are being propelled by government efforts like as e-health, in conjunction with tax perks and incentives.

Shifting Disease Burden

- Non-communicable diseases (NCDs) comprise 50% of the illness burden and 60% of all fatalities in India, placing a heavy load on the healthcare system. Notwithstanding, encouraging advancements and endeavors have been made with intention of tackling them.

Priorities for driving growth in digital health and wellness worldwide, 2021



Health spending in the US increased by 2.7% in 2021 to \$4.3 trillion; pricing, payment systems and their regulatory framework are powerful tools to drive broader health system goals

Pricing Strategies in the Industry

Value Based Pricing

Usually, it entails bundling a few related services that are required by a lot of people at a cheaper cost than the services would have cost alone.

Bundled Pricing

Price bundling is a tactic that helps a hospital to find unique bundles of related services and charge the "bundles" of services differently depending on the number of related services that make up a particular bundle.

Cost Based Pricing

Hospitals using the cost-based pricing technique must calculate the costs associated with labor, raw materials, machinery, human resources; they must then add quantities or percentages for overheads & profit margin to arrive at a price.

Complementary Pricing

This pricing strategy, also known as loss leader pricing, finds complementary among a few of its offerings. Although the cost of the core service is inexpensive, the ancillary services either be highly costly or priced to partially cover the cost of the basic services.

Pricing components in the Industry

Reimbursement: Establishes the rate at which service providers will be compensated based on type of service, the insurer's reimbursement schedule & the provider's contract with the insurer.

Cost Containment: Cost containment can be achieved in a variety of ways, such as by cutting waste, increasing productivity, and negotiating better supplier contracts. As cost reduction is crucial it keeps cost down for both patients and providers.

Pivotal Issues for the Industry

Confronting Affordability and disruptive costs

In 2023, the business landscape will probably push all health plans and health systems to address affordability head-on to aggressively deliver additional value, they must rethink strategy and reengineer financial and business models.

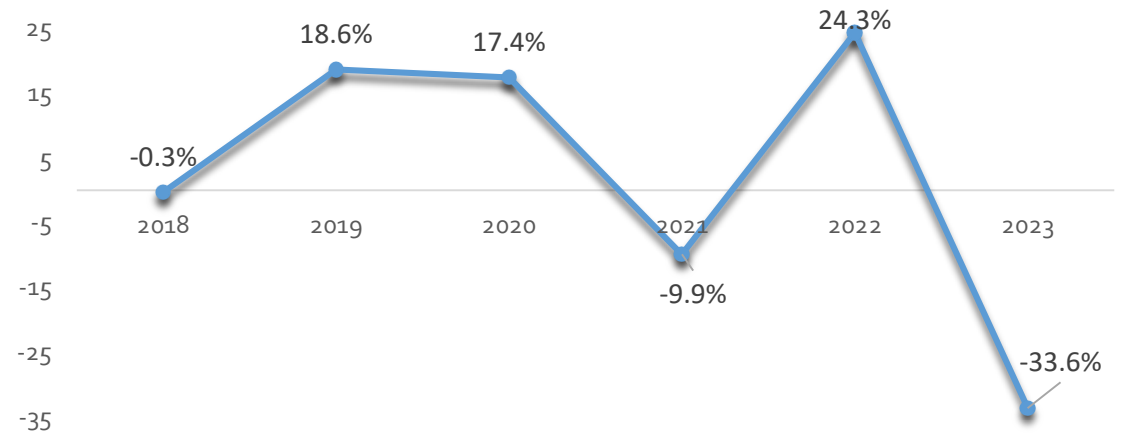
Attracting and Retaining Customers

More often brand, experience, and reimbursement come together; this is due in part to changes in consumer behavior and in performance metrics like Medicare STARS and CAHPS.

Digitizing Healthcare

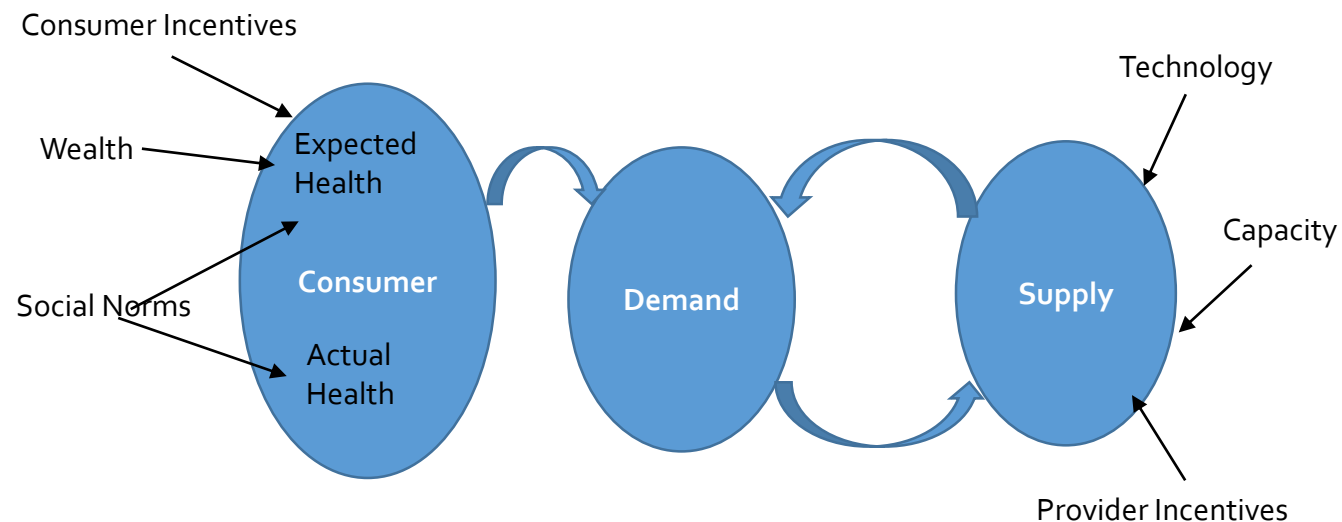
Health systems will keep reshaping healthcare delivery with the use of analytics and digital health, which enable quicker access to capabilities, more efficient operating environments, increased convenience & smoother customer experience.

Annual Health Insurance Price Inflation Rate in U.S

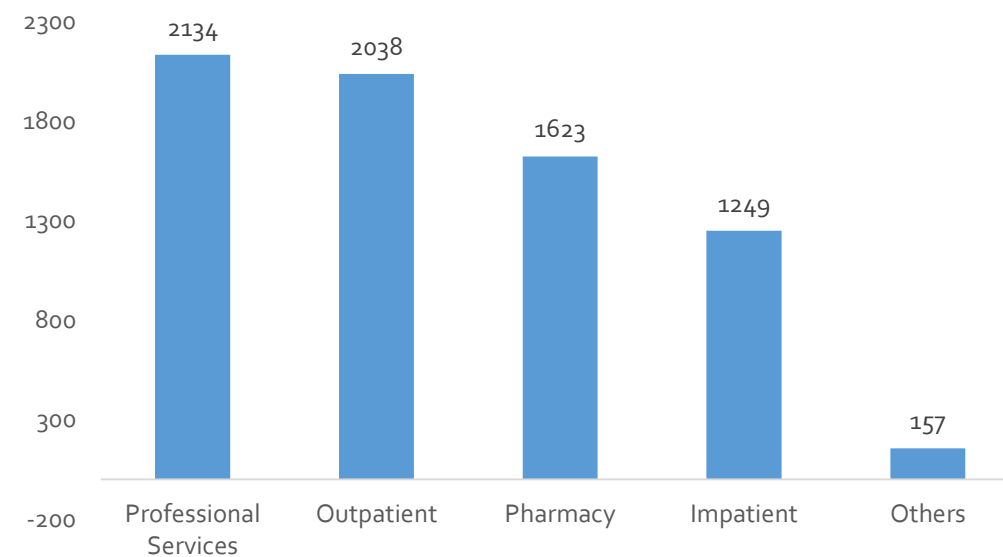


HRI is projecting a 7% year on year medical cost trend in 2024 for both individual and group markets; high medical cost reflects health cost modelling for inflationary unit cost

Supply- Demand model of Industry



Annual Healthcare Cost for an average person(in U.S Dollars) ,2023



- ▶ **Wealth** : People will spend nearly any amount on health care if they can afford to; nothing drives national health care demand more than this does.
- ▶ **Social Norms** : The frequency with which people use health care services and goods is determined by societal norms. Empirical data indicates that an individual's expectations are influenced by others in their immediate environment.
- ▶ **Consumer Incentives**: In some cases when economic constraints are placed on consumers demand falls ,so it revive that consumers are provided with various incentives that benefit the consumers.
- ▶ **Technology**: All due to technology, medicine is now a field where specialists treat disease causes as well as its symptoms; researchers are actively working on applications based on genetics and proteomics .
- ▶ **Capacity**: The simple availability of health care goods and services influences the rate of their consumption because many patients receive free or significantly subsidized care at the point of service.
- ▶ **Provider Incentives**: One well-known illustration of the effectiveness of these incentives is the difference in impact between capitated and activity-based compensation. Activity-based systems: these systems pay providers for each activity unit they complete. Capitated pay schemes, wherein healthcare professionals get a fixed charge for each patient,

Development of diagnostic tools that can detect risk groups and save subsequent health care expenses through early treatments could be facilitated by advances in genetic sequencing

Emerging Advancements in the Industry

Blackstone enters Indian healthcare services sector

Blackstone is making its foray into the Indian healthcare market through private equity funds with two purchases valued at approximately \$1.3-1.5 billion.

Analysis links Psoriasis and Obstructive Sleep Apnea

When comparing patients with psoriasis, the risk of OSA was considerably greater (29.3% vs. 17.1%; $P < .001$). In the adjusted model, psoriasis & OSA were strongly correlated even after adjusting for age, gender, race, BMI & smoking status.

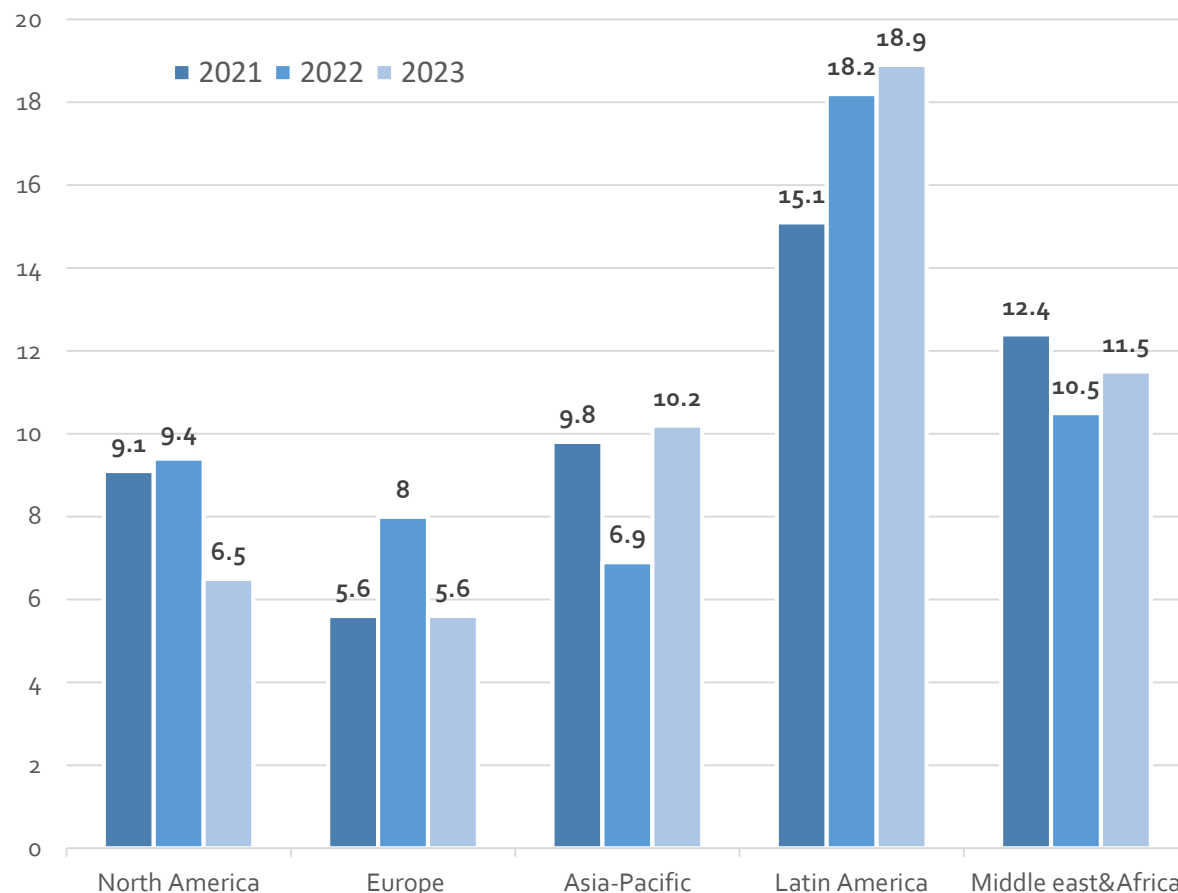
GSK's hopes for approval of RSVPreF3 OA

Its investigational shot exhibited statistically significant and clinically important decreases in cases of lower respiratory tract disease caused by RSV in people 60 years of age and older, demonstrating that the vaccine was effective in a phase 3 trial conducted in older adults





Siemens healthineers bets on use of AI

Siemens Healthineers has more than 800 AI related patents under its belt. To guarantee security, every application goes through a rigorous testing & validation

Medical costs worldwide trends from 2021 with forecast of 2023



Healthcare Industry- Competitive Benchmarking


Company Name	Products & Services	Clientele	Revenue(In Billions)	News Room
	<ul style="list-style-type: none"> ▪ Optum Health ▪ Optum Insight ▪ Optum RX ▪ United Healthcare Employer & Individual ▪ United Healthcare Medicare & Retirement ▪ United Healthcare Community & State 	100 Mn+	324.1	<ul style="list-style-type: none"> • Optum Rx takes an additional step to make Insulin more affordable. • United Healthcare foundation has announced a 3 year \$2.3 million grant partnership with Mary Bird Perkins Cancer Center. • United Healthcare selected by New Mexico Human Services Department to serve Medicaid members via Turquoise care.
	<ul style="list-style-type: none"> ▪ Eliquis , Nurtec ODT & Premarin family ▪ Comimaty & Paxlovid ▪ Vyndaqel family ,Oxbryta and Genotropin ▪ Sulperazon & Medron ▪ Ibrance, Xtandi and Retacrit 	-	100.3	<ul style="list-style-type: none"> • The first and only vaccine for preventing the five most common serogroups that cause meningococcal disease in adolescents, PENBRAYATM, has received FDA approval. • Pfizer's BRAFTOVI® + MEKTOVI® for BRAF V600E-mutant metastatic non-small cell lung cancer has received approval from the U.S. FDA.
	<ul style="list-style-type: none"> ▪ Polycose ▪ Glucerna & HI Cal ▪ Nepro & Oxepa ▪ Pediasure & Pedialyte ▪ Jevity & ProMod 	-	53.4	<ul style="list-style-type: none"> • Abbott's new Ultreon 1.0 ,coronary imagining software with OCT & power of AI launched in India. • Abbott introduces its latest generation transcatheter aortic valve implantation (TAVI) system in India under the name NaviTORTM.
	<ul style="list-style-type: none"> ▪ Hospital Services ▪ Digital Health & Pharmacy ▪ Diagnostics & Retail Health ▪ Medical Courses ▪ Academic Research 	6 Mn+	1.9	<ul style="list-style-type: none"> • Apollo cancer center introduces India's fastest and more precise breast cancer diagnosis program to provide early detection and treatment. • Apollo hospitals crossed 10000 robotic assisted surgeries. • Apollo hospitals introduced India's first comprehensive connected care services offering clinical staff a holistic real time view of the patient.

Pfizer Inc. is a worldwide biopharmaceutical company, conducting research for more than 170 years by applying science & resources around the world to develop therapies of better lives

- ▶ Global portfolio includes pharmaceuticals & vaccines and before the first prescription is written, every product undergoes over 36 clinical trials, over 500,000 lab testing
- ▶ Furthermore, Pfizer is constantly improving its ESG approach, which is concentrated on six areas where we believe there are chances to make a significant difference: corporate ethics; diversity, equity, and inclusion; fair access and pricing; product quality and safety; and climate change.

Key Highlights

 **Founded**
1849

 **Headquarters**
New York, USA

 **Employees**
80000+

 **Revenue (2023)**
\$100.3 Billion

 **Website**
[LINK](#)

R&D Priorities and Strategy

- Supply of a pipeline of highly distinct drugs and vaccines where they have a special chance to provide people in need with the most significant new treatments;
- Developing innovative collaboration models with inventiveness, adaptability, and a drive to provide patients with breakthrough treatments as soon as feasible
- Forming partnerships, alliances, license contracts, and financial investments to pool resources, reduce risk and get access to outside scientific & technical expertise to enhance products

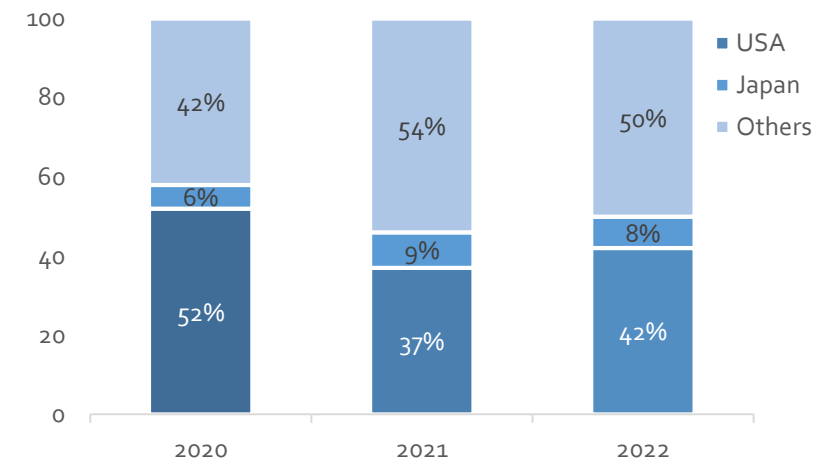
Primary Care

- Internal Medicine included regional brands and unique brands in women's health, migraine, cardiovascular metabolic, and metabolic disorders
- Innovative vaccines for all age groups, with a pipeline emphasis on infectious illnesses with substantial unmet medical need, comprise the vaccines product portfolio..

Secondary Care

- Product portfolio for Inflammation & Immunology (new brands & biosimilars for inflammatory and chronic immunological conditions)
- Innovative brands for several therapeutic categories with rare diseases, such as haemophilia, endocrine disorders, sickle cell disease etc..

Revenue by Geography(in %)



Awards & Accolades

- CMO Leadership Award: Pfizer Centre wins for the sixth consecutive time.
- Pfizer was ranked #34 on Forbe's annual list of America's best employers for diversity.
- Pfizer wins the 2022 supply chain award for customer or patient innovation.
- Pfizer is ranked #24 on the 2022 LinkedIn top companies in Healthcare

Apollo Hospitals has built a strong foundation in retail healthcare ecosystem since its inception diversifying into hospitals, pharmacies ,primary care and diagnostic clinics

Apollo Hospitals has consistently placed a high priority on clinical excellence, early adoption of cutting-edge technology, and progressive academic and research endeavors, all while maintaining operational effectiveness and providing a compelling value offer for the customer.


Apollo hospitals has emerged as the first in Asia linked medical provider of services and portrays a robust availability over the medical the ecosystem

Key Highlights

 **Founded**
1983

 **Headquarters**
Chennai, India

 **Employees**
80000+

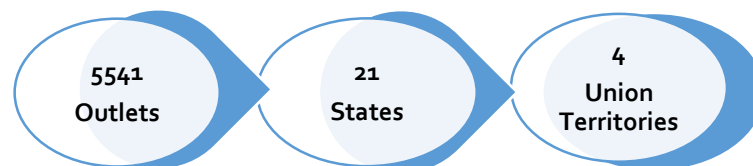
 **Revenue (2023)**
\$1997 Million

 **Website**
[Link](#)

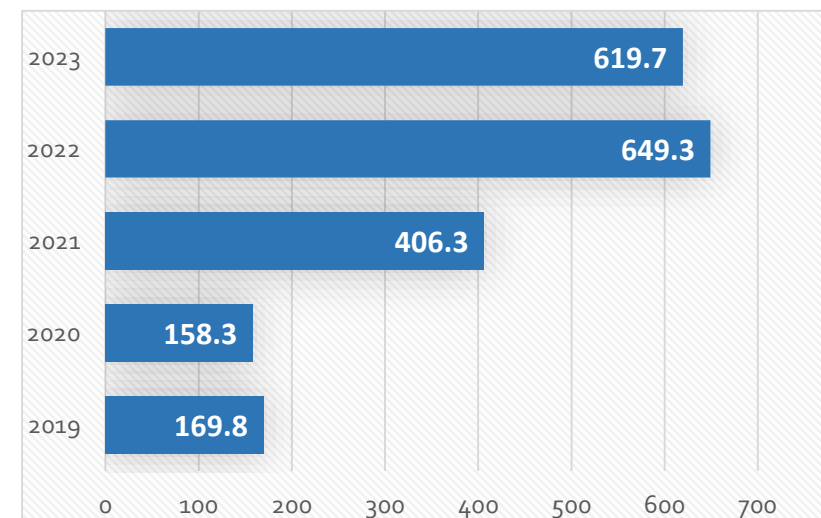
Strategic Focus Areas

- **Enhanced focus on Centers of Excellence**
Developing these COEs as destination centers will improve the case mix, which will raise the profit profile.
- **Retail Model to drive Growth**
Made it possible for Apollo Hospitals to better serve more people & give them simpler access to services along the continuum of care.
- **Focus on Life improving procedures and elective surgeries**
Grow the market share& volume of these treatments in the future by building deep sub-specialty practices and recruiting specialized surgeons.
- **Growing and enhancing reach in key Hospital Networks**
The company intended to increase its footprint by identifying important target areas in order to fortify its position inside its current clusters as well as broaden its reach into important metropolitan marketplaces including Tier II & Tier III cities where it is not currently present.

Omnichannel Healthcare Platform in India



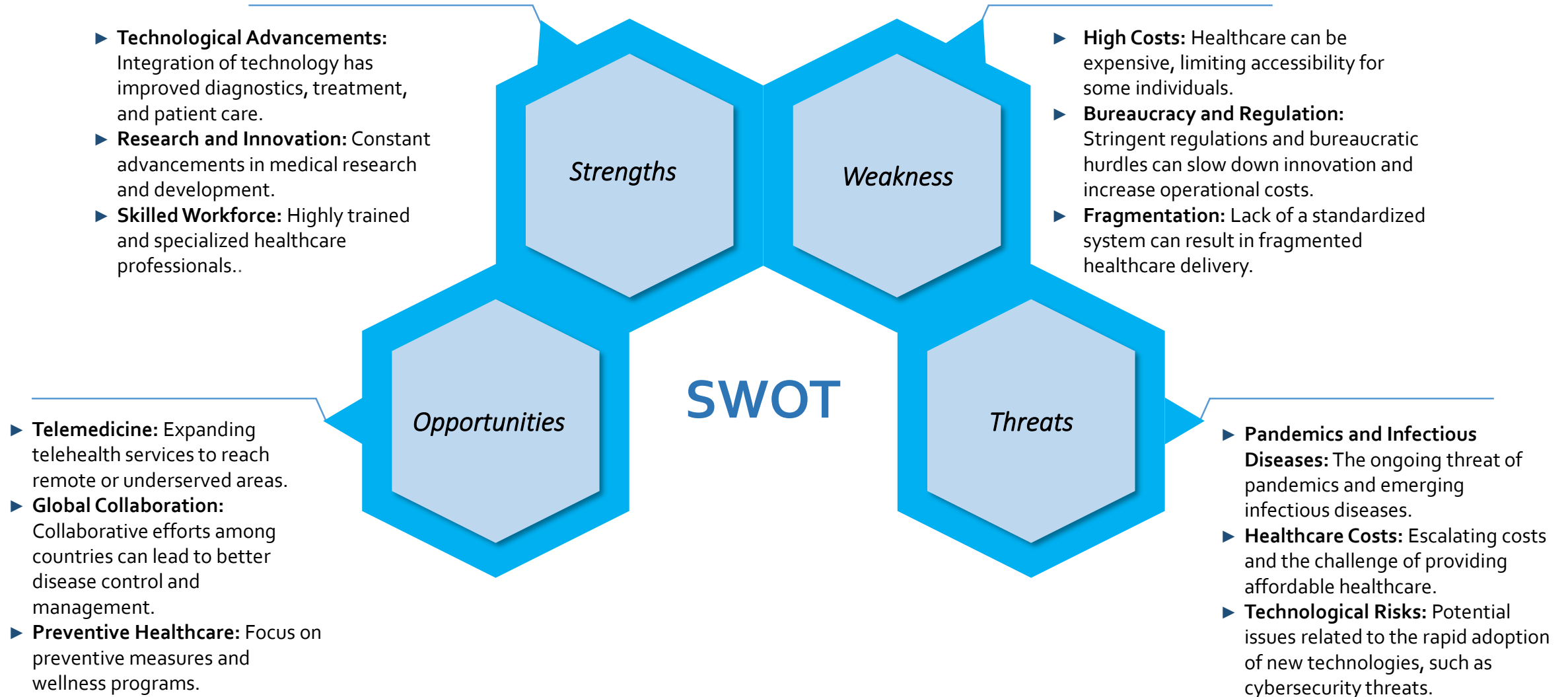
Market Cap in Billions



Awards & Accolades

- Apollo hospitals Chennai was awarded as the Best Medical and wellness Tourism by Govt. of Tamil Nadu.
- Apollo Hospitals won the award for Medical value travel specialist hospital ,2023
- Award was conferred to Apollo hospitals for the best Covid-19 response for its contribution.

Healthcare Industry- SWOT Analysis



Healthcare sector is anticipated to change significantly in the future from its present circumstances in each market, generating fresh chances to produce value and expand



The threat of new entrants is low because :

- ▶ Need of substantial capital investment for R&D requirements
- ▶ Crucial regulatory policy and government policies to abide.
- ▶ Presence of established dominant players.
- ▶ Inclination towards M&A with big players.



The bargaining power of suppliers is high because

- ▶ High dependency on supplier's products and services.
- ▶ Never decreasing demand for healthcare services
- ▶ Absence of adequate suppliers for a particular good or service.
- ▶ Government's intervention in health and quality.



The competitive rivalry is high in this industry because

- ▶ Intensely populated privately owned clinics.
- ▶ Constant investment in R&D by companies to develop new drugs.
- ▶ Rigorous marketing to prevent mindshare.
- ▶ Highly price sensitive market.



The bargaining power of buyers is low in this industry

- ▶ Customer demand is highly inelastic
- ▶ Limited choices on medicines prescribed by HCP's.
- ▶ Pricing by suppliers in case of bulk orders .



The threat of substitutes is low in this industry because

- ▶ Demand for medicines at cheaper rates.
- ▶ Price rivalry with competitor brands.
- ▶ Inclination towards Ayurveda



Healthcare Industry- Company Segmentation

